

Assessment

Assessment is a way to measure student learning and/or program effectiveness.

- Assessment provides the **evidence** that determines whether students have met the standards and performance indicators.
- Assessment **informs** teachers and others **what** health concepts and skills students have learned, and **how well** they have learned these concepts and skills.
- Assessment **informs** teachers whether or not adjustments must be made to health education curricula, instruction or assessments.

Assessment systems combine multiple assessments into a comprehensive format that provides thorough, valid, reliable, and trustworthy information for making decisions about students' achievement. A balanced assessment system is comprised of formative and summative assessments administered on both a large scale and at the classroom level. (In this context, "balanced" does *not* refer to assessments that are of equal weight.)

Summative and Formative Assessment Defined

Educators have demonstrated effective means of *summative assessment*; the assessment **of** learning. Students of any era can recall studying a chapter or unit of a content area, followed by a quiz or test that revealed how much information was retained from the lessons and/or activities implemented. Summative assessments document student achievement of health standards. Summative assessments, used in conjunction with formative assessments, can clarify the curriculum and instruction students will need to achieve the standards.

Formative assessment, the assessment **for** learning, is needed to achieve and maximize instructional outcomes. *Formative assessment* continually measures student performance to guide instruction and enhance student learning. Formative assessment is "A process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of intended instructional outcome."

In examining the above definition, two words stand out in the importance of implementing true formative assessment. They are “feedback” and “adjust.” Formative assessment differs from summative assessment in its ability to give students meaningful feedback to enhance learning *prior* to being issued a passing or failing grade.

The second prominent word in this definition of formative assessment deals with the time given students to “adjust” their understanding of knowledge or performance of skills. Formative assessment gives students sufficient time to make adjustments to enhance their learning. Therefore, the sooner meaningful feedback comes into play, the better for students.

Teachers use both formative and summative assessments to evaluate student learning, assign grades, and communicate with students and their families about student progress. Formative and summative assessments also provide important information for planning, implementing, and evaluating services and interventions designed to support student learning.

Emphasizing assessment *for* learning is perhaps more important than emphasizing assessment *of* learning because formative, or classroom-based assessment, can improve understanding of health concepts and skills and thus improve performance on summative or high-stakes assessments.

Purposes of Assessment

An understanding of the purposes of summative and formative assessment is essential to making decisions related to assessment and assessment systems. There are several important questions to consider when using an assessment:

- a. How will the results of the assessment be used?
 - To inform curriculum and instruction?
 - To assign a grade?
 - To document students’ achievement of a standard and/or performance indicator?
- b. What concept and/or skill is being assessed?
 - What level of knowledge of the concepts and/or ability to demonstrate health skills is

being assessed: remembering, understanding, applying, analyzing, evaluating, or creating?

- c. What curriculum and instructional activities are needed to ensure that students have the opportunity to develop the knowledge and/or skill they need to succeed on the assessment?
- d. What resources are available for developing, conducting, and scoring the assessment and communicating the results of the assessment?

By answering these questions, teachers and other school personnel can decide the assessment activity or activities that best meet their needs.

Guiding Principles of Assessment

There are key guidelines related to the appropriate development and use of assessment and assessment systems by classroom teachers, school administrators, and state and national policymakers.

Assessment for learning (or formative assessment) in health education includes giving students:

- Explicit information about the health concepts and skills that will be covered by an assessment;
- Clear performance targets prior to instruction;
- Clear evaluation criteria;
- Multiple models or demonstrations of excellence;
- Multiple opportunities to learn, practice, and apply health concepts and skills;
- Assessments in which they create products and performances that are authentic in the application of health concepts and skills;
- Support for assuming responsibility for learning;
- Opportunities to engage in regular self assessment;
- Opportunities to build their confidence as learners; and
- Frequent and specific feedback that gives them insight about ways to improve.

Assessment for learning in health education also includes continual modification of instruction based on the results of classroom assessment and involvement of students in communication with their families about their progress toward, and achievement of, health literacy.

Standards-Based Assessment, Curriculum, and Instruction

A guiding principle of assessment is the alignment of standards, assessment, curriculum, and instruction. The link between assessment, curriculum, and instruction can be thought of as a continuous cycle in which

- a. the assessment of standards and performance indicators informs curriculum,
- b. curriculum informs instruction,
- c. instruction informs assessment, and
- d. evidence from the assessment once again informs curriculum.

Backward Design

One approach to standards-based assessment, curriculum, and instruction is *backward design*. Planning in a standards-based environment is often called “backward” because it “begins with the end” in mind.

In a standards-based classroom, “the end” that teachers concentrate on involves the standards and performance indicators (what students should know and be able to do) that have been identified as those that students must meet at the end of the grade or course that they are in (versus completion of a particular activity or project, chapters in a book, or a packaged curriculum).

Clarifying curricular priorities is a key component of backward design. Curriculum and assessment decisions are made based on the desired end result. The desired end result in health education is the set of health concepts and skills that students should know and be able to do to become **health literate** and **practice healthy behaviors**.

Backward design is a three-step approach to aligning standards, assessment, curriculum, and instruction with a specific goal in mind.

- The **FIRST STEP** in backward design is to use standards and performance indicators to identify the health concepts and skills that students should know and be able to do.
 - *What should students know and be able to do?*
- The **SECOND STEP** is to identify assessments that will provide evidence of students' achievement of these concepts and skills.
 - *How will we know if students have achieved the desired results and have met the standards?*
 - *What will we accept as evidence of student understanding and proficiency?*
- The **THIRD STEP** is to plan learning experiences and instruction that give students the opportunity to practice and master health concepts and skills.
 - *What instructional activities will we need in order to match the selected learning goals and planned assessment?*

Backward design requires that teachers, administrators, and other school personnel make adjustments to teaching and learning in four key ways.

- **FIRST**, the assessments that are used to measure students' knowledge of health concepts and ability to perform health skills must be well thought out prior to the development of lessons.
- **SECOND**, favorite activities and projects may need to be revised or eliminated in order to have assessments aligned with the SDHES and performance indicators.
- **THIRD**, the methods and materials used for teaching health concepts and skills are chosen *after* teachers, administrators, and other school personnel have established the tasks that students must complete to demonstrate their knowledge and skills.
- **FOURTH**, the resources used to support instruction in health education may shift from textbooks to a wide variety of materials such as the Internet, information from governmental agencies and/or voluntary health organizations.

Types of Assessment

Assessment items lie on a continuum, from informal to formal assessment. Different types of assessment items are emphasized in formative assessment (observation of students' ability to perform a skill during classroom instruction) and summative assessment (questions on a test). The goal of formative assessment is to improve student achievement as well as classroom instruction. The goal of summative assessment is individual student accountability – a measure of what the student knows and does not know, and can and can not do.

The two major types of assessment items include *selected response items* and *constructed response items* (Fig. 1.5).

- Selected response items are questions in which the students are prompted to select an answer from two or more response options. Examples of selected response items include multiple choice, true/false, and matching items.
- Constructed response items are questions in which students are prompted to construct an answer to the question. Examples of constructed response items include short answer, essay, performance tasks or other types of responses.

Selected response and constructed response items are most commonly used on quizzes and tests to assess student understanding of health concepts and skills.

Performance Assessment

Performance assessment is often referred to as *alternative assessment* or *authentic assessment*. Performance assessment requires students to create a product or performance which demonstrates mastery of one or more health concepts and skills. An “authentic assessment” generally refers to the real-life tasks and everyday situations that children and adolescents face. Performance assessments are often a more valid indicator of a student's knowledge and skills as they require a demonstration of learning.

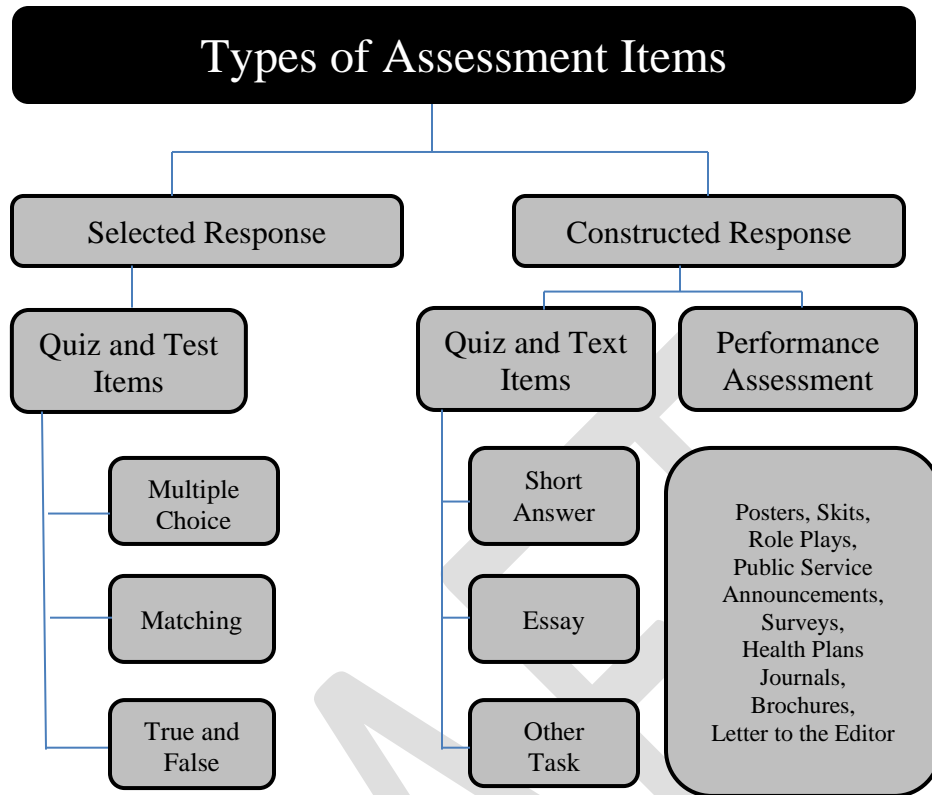


Figure 1.5 The different types of assessment.

Rubrics

Rubrics provide students with clear criteria for a specific assignment, and teachers with a guide when scoring students' work. A typical rubric includes assessment criteria and a numeric or proficiency scale (basic, proficient, advanced) designed to rate students' work. Two types of rubrics are:

- A *holistic rubric*, which requires the teacher to score the overall process or product as a whole, without judging the component parts separately.
- An *analytic rubric*, where the teacher scores separate, individual parts of the product or performance first, then sums the individual scores to obtain a total score.

Conclusion

Assessment linked to health education standards, performance indicators, curriculum, and instruction is critical to students' mastery of health concepts and skills. There are a variety of valid assessments that range from a simple check for understanding to high-level performance tasks. The use of an assessment should be matched to a purpose, and clearly-defined rubrics should be used to help guide students from the beginning of a task to its final appraisal.

Finally, recognizing the value of both formative assessment and summative assessment in the educational process is vital to reaching the level of health literacy, which will ultimately support healthy behaviors.

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